

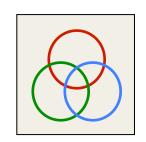
BUILDING BRIDGES Part II:

Purposeful Parenting and the Primary Prevention of Toxic Stress

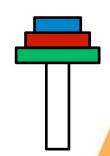
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3 Objectives For Part 2:

 Briefly review <u>Part 1</u> (toxic stress is a mediator between early childhood adversity and less than optimal outcomes in <u>learning</u>, behavior and <u>health</u>)



 Describe a vertically and horizontally integrated public health approach to prevent, mitigate, and treat toxic stress



 Discuss the six principles of Purposeful Parenting as a potential framework for the primary prevention of toxic stress





Critical Concept #1

Childhood Adversity has Lifelong Consequences.

Significant adversity in childhood is strongly associated with unhealthy lifestyles and poor health decades later.

Defining Adversity or Stress

- How do you define/measure adversity?
- Huge individual variability
 - Perception of adversity or stress (subjective)
 - Reaction to adversity or stress (objective)
- National Scientific Council on the Developing Child (Dr. Jack Shonkoff and colleagues)
 - Positive Stress
 - Tolerable Stress
 - Toxic Stress

Based on the **REACTION** (objective physiologic responses)



Defining Adversity or Stress

- Positive Stress
 - Brief, infrequent, mild to moderate intensity
 - Most normative childhood stress
 - Inability of the 15 month old to express their desires
 - The 2 year old who stumbles while running
 - Beginning school or daycare
 - The big project in middle school
 - Social-emotional buffers allow a return to <u>baseline</u>
 (responding to non-verbal clues, consolation, reassurance, assistance in planning)
 - Builds motivation and resiliency
 - Positive Stress is **NOT** the **ABSENCE** of stress



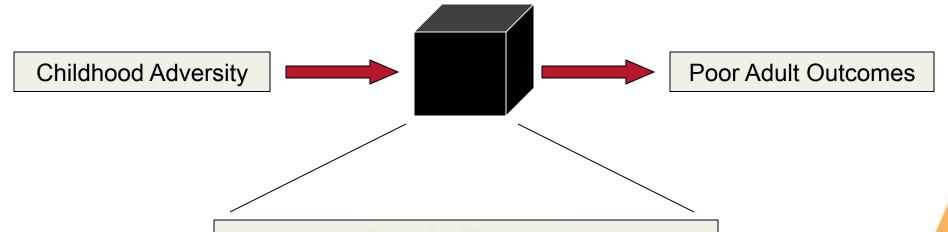
Defining Adversity or Stress

- Toxic Stress
 - Long lasting, frequent, or strong intensity
 - More extreme precipitants of childhood stress (ACEs)
 - Physical, sexual, emotional abuse
 - Physical, emotional neglect
 - Household dysfunction
 - Insufficient social-emotional buffering
 (Deficient levels of emotion coaching, re-processing, reassurance and support)
 - Potentially permanent changes with long-term consequences
 - Epigenetics (there are life long / intergenerational changes in how the genetic program is turned ON or OFF)
 - Brain architecture (the mediators of stress impact upon the mechanisms of brain development / connectivity)



Linking Childhood Experiences and

Adult Outcomes



Toxic Stress

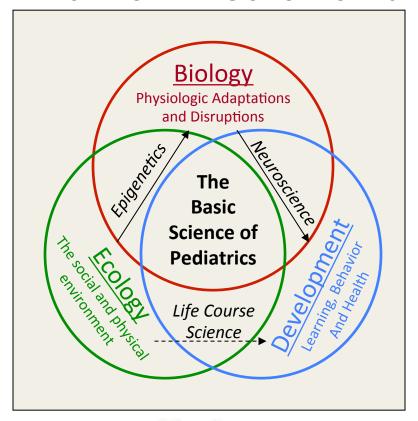
Epigenetic Modifications

Disruptions in Brain Architecture

Behavioral Allostasis



Eco-Bio-DevelopmentalModel of Human Health and Disease



Ecology becomes biology,

And together they drive development across the lifespan

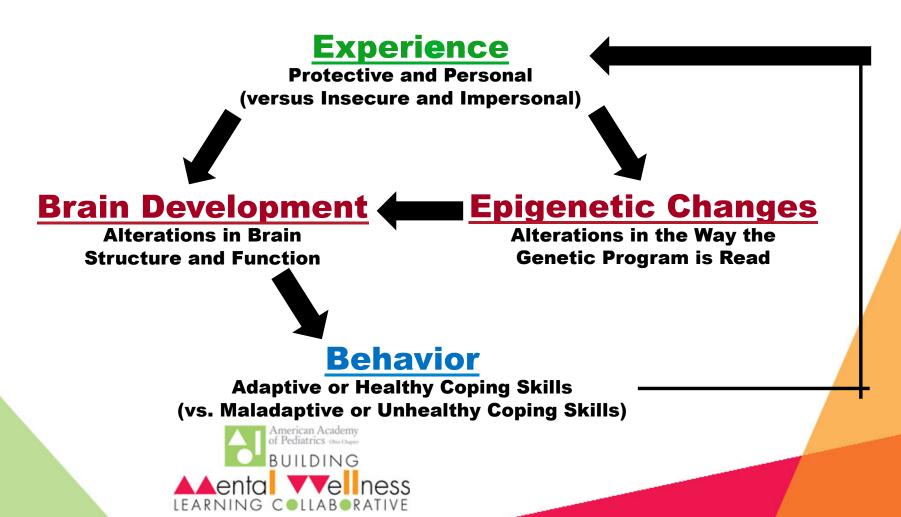


Advantages of an **EBD** Framework

- Though grounded in developmental science, the simplicity of the EBD framework may promote understanding as well as support for translation (investing in childhood is the right thing to do BIOLOGICALLY!)
- Psychosocial stressors and other salient features of the ecology are every bit as biological as nutrition or lead (no distinction between mental and physical health, just healthy vs. unhealthy development)
- Emphasizes the dimension of time to reflect the ongoing, cumulative nature of benefits and threats to health and wellness



Development results from an ongoing, re-iterative, and cumulative dance between nurture and nature



Advantages of an **EBD** Framework

- Underscores the need to improve the early childhood ecology in order to:
 - Mitigate the biological underpinnings for educational, health and economic disparities
 - Improve developmental/life-course trajectories
 - Changing the ecology will demand a <u>public health</u> <u>approach and unprecented levels of collaboration!</u>
- Highlights the pivotal role of toxic stress
 - Not just "step on the gas" or enrichment
 - But "take off the brake" by treating, mitigating or immunizing against toxic stress



 We discovered that education is not something which the teacher does, but that it is a natural process which develops spontaneously in the human being.

- Maria Montessori



 All the evidence that we have indicates that it is reasonable to assume in practically every human being, and certainly in almost every newborn baby, that there is an active will toward health, an impulse towards growth, or towards the actualization.

- Abraham Maslow



Reinventing the Wheel?

Models

Maslow's Hierarchy of Needs (Theoretical - 1943)

Needs

Self-Actualization

Need to know, explore and understand

Unmet needs are potential sources of **STRESS**!!



The **BIG** Questions are...

If **TOXIC STRESS** is the missing link between **ACE exposure** and **poor adult outcomes**, it raises the following BIG questions:

- Are there ways to:
 - treat,
 - mitigate, and/or
 - immunize against toxic stress?
- Is there a mismatch between:
 - what we KNOW … and …
 - what we actually DO?

YES!! See Part 1!



Addressing Toxic Stress

- Treatment of the consequences
 - TF-CBT and PCIT are evidence-based
 - Reactive some "damage" already done!
 - Very costly
 - Efficacy linked to age and chronicity
 - Declining brain plasticity?
 - Insufficient number of / access to providers
 - Limited reimbursements; carve-outs
 - Mental Health Parity?
 - Persistent STIGMA
 - "Character Flaws" vs "Biological Mal-adaptations"



Addressing Toxic Stress

Secondary / Targeted Preventions

- Focused, targeted interventions for those deemed to be "at high risk"
- Visiting Nurse Programs (Nurse Family Partner.)
- Parenting Programs (Nurturing Parenting)
- More likely to be effective; minimize "damage"
- Requires screening / targeting
- Still issues with stigma, numbers of / access to providers



Addressing Toxic Stress

Primary / Universal Prevention

- Proactive, universal interventions to make stress positive, instead of tolerable or toxic
- Acknowledges that preventing all childhood adversity is impossible and even undesirable
- Actively building resiliency ("immunizing" through positive parenting, 7C's, promoting optimism, formalized social-emotional learning)
- SE Buffers allow the physiologic stress response to return to baseline (toxicity prevention)
 - Parenting skills for younger children
 - SEL skills for older children (www.casel.org)



Social-Emotional Skills Can Be Taught and Learned



Critical Concept #2

SOCIAL-EMOTIONAL SKILLS...

(a.k.a - Affect Regulation, Non-Cognitive Skills, Mindfulness)

...Are learned (they can be modeled, nurtured, taught, practiced, and reinforced)

... Effectively buffer against toxic stress

(by helping to turn off the physiologic stress response)

...Increase test scores

(an average of 11 points by meta-analysis!)



Early Experiences Last a Lifetime



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Ohio's Early Learning and Development Standards

Introduction

Social-Emotional Development

Approaches Toward Learning

Physical Well-Being and Motor Development

<u>Cognitive Development and General</u> <u>Knowledge (including Mathematics, Science and Social Studies)</u>

Language and Literacy Development

Ohio's Early Learning and Development Standards

On October 9 2012, the State Board of Education adopted Ohio's new Birth – Kindergarten Entry Early Learning and Development Standards in all domains of school readiness to reflect the comprehensive development of children beginning at birth through entry into kindergarten. The standards were expanded as part of a collaborative effort of state agencies serving young children including Ohio Department of Education, Ohio Department of Job and Family Services, Ohio Department of Health, Ohio Department of Developmental Disabilities, and the Governor's Office of Health Transformation. The state agencies worked with national experts and writing teams made up of Ohio–based content experts and stakeholders to revise and expand the standards in the following domains.

See: www.earlychildhoodohio.org/elds.php



Parenting as Primary Prevention

- Promoting Parenting Skills in the first 1000 days
 - Parenting is personal makes pediatricians <u>NERVOUS!</u>
 - "Positive/Nurturing/Supportive" Parenting
 - A Poor investment?
 - Are parenting skills "teachable?" YES!!
 Is there a "ceiling effect" on returns? What is "OK?"
 - Or the "Gold Standard?"
 - Shouldn't this be THE reference point (NOT routine, general, or control populations)
- Recent article from Luby et al., PNAS
 - Maternal support and Depression severity at ages 3-5
 - "Waiting Test" assessed the dyad (Bright Gift + Parental Surveys)
 - Hippocampal volumes at school age (7-13)



- Early maternal support exerts a positive influence on hippocampal development
- The positive effect of maternal support on hippocampal volumes was greater in nondepressed children

